A STRATEGIC MERGER AND AMALGAMATIONS IN INDIA SINCE ECONOMIC LIBERALIZATION: A CASE STUDY OF BANKING SECTOR

ABSTRACT

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ABSTRACT

In the globalized economy, Merger acts as an important tool for the growth and expansion of the economy. The main motive behind the merger is to create synergy, that is one plus one is more than two and this rationale beguiles the companies for merger at tough times. Merger helps the companies in getting the benefits of greater market share and cost efficiency. Companies are confronted with the facts that the only big players can survive as there is a cut throat competition in the market and the success of the merger depends on how well the two companies integrate themselves in carrying out day to day operations.

Merger is a century old phenomenon in the global history; the present world scenario is such that it is the economic prowess of a country which tends to determine its standing in the world order rather than its military power. The boundaries are disappearing and the flow of goods, services, technology, capital, labour, etc are easier and hassle free comparatively than it were ever before. The production centers are no longer localized with the emergence of transactional corporations which have got productions centers sprawled all over the world. Foreign investment plays a vital role in the development process as it provides the much needed capital influx especially in developing countries. In the past decade it has been observed that a major reason for the sharp increase in the volume of international productions and Foreign Direct Investment (FDI) is merger and acquisition. It is now a preferred mode of entry for starting a business over Greenfield investment. In contrast, mergers that took place in the 1980s for the short term financial gains, the mergers which are taking place in the present era are mainly motivated by strategic and economic gains in the long run.

In the recent past, the world has witnessed a dramatic wave of rise in the rate of increase of mergers leading to major restructuring of corporate structure and also the globalization of industry. It has become an important and vital mode for the expansion, eliminating competition, making forays into new market creating synergies, improving economies of scale, and expanding profitability and a host of various other reasons. It has become a preferred mode of investment over Greenfield investment where no facilities exist. The primary concept involved in mergers is that
it is done primarily with the intention of combining two firms in order to create
synergy and shareholder value.

In India, consolidation of banks through Merger and Amalgamation is not a new
phenomenon, which has been going on for several years. Since the beginning of
modern banking in India, through the setting up of English Agency House in the 18th
century, the most significant merger in the pre- Independence era was that of the three
Presidency banks founded in the 19th century in 1935 to form the Imperial Bank of
India (renamed as State Bank of India in 1955). In 1959, State Bank of India acquired
the state-owned banks of eight former princely states. In order to strengthen the
banking system, Travancore Cochin Banking Enquiry Commission (1956)
recommended for closure / amalgamation of weak banks. Consequently, through
closure/ amalgamations that followed, the number of reporting commercial banks
decreased from 561 in 1951 to 89 in June 1969. Merger of banks took place under
the direction of the Reserve Bank during the 1960s. During 1961 to 1969, 36 weak banks,
both in public and private sectors, were merged with other stronger banks. This way
been several bank amalgamations were seen in India in the post-reform period. In all,
there have been 33 M&As since the nationalization of 14 major banks in 1969. Of
these mergers, 25 involved mergers of private sector banks with public sector banks,
while in the remaining eight cases, mergers involved private sector banks. Out of 33,
21 M&As took place during the post-reform period with as many as 17 mergers/
amalgamations taking place during 1999 and after. Apart from this, few more merger
were occurred in the Indian banking sector, the HDFC Bank acquired the Centurion
Bank of Punjab on 23 May 2008. In the year 2010, on 13th August, the process of
M&As in the Indian banking sector passed through the Bank of Rajasthan and the
ICICI Bank. The Reserve Bank of India sanctioned the scheme of merger of the ICICI
Bank and the Bank of Rajasthan. After the merger, ICICI Bank replaced many banks
to occupy the second position after the State Bank of India (SBI) in terms of assets in
the Indian Banking Sector. And in the last ten years, ICICI Bank and HDFC bank in
the private sector and Bank of Baroda (BOB) and the Oriental Bank of Commerce
(OBC) in the public sector involved themselves as bidder banks in the Merger and
Acquisitions (M&As) in the Indian Banking Sector.

The foregoing statement of problem is being verified by the literature review that is
presented in the coming section. It is an attempt to substantiate the view that the
contemporary problems do not find adequate treatment in the existing literature on the subject. The study is to analyze the financial performance in terms of Profitability, Operational Efficiency and Asset Utilization Capacity, Solvency, Enterprise Value and Business Performance of a strategic mergers and amalgamations in India since economic liberalization with special reference to the Banking sector. Along with it the researcher made an attempt to investigate the impact of mergers on the wealth of shareholders of respective banks. It is probed whether the mergers undertaken are in the interest of the shareholders namely target and the bidder banks.

**Review of literature** shed light on various gaps in the previous researches carried out in this field. The Researcher intends to put an honest effort to provide his sincere contributions in this regard. Majority of the aforesaid studies are based on trends, policies, framework, human resource and few works found in the field of financial profitability of banks in India and requisites which are investigated. Profitability and financial analysis of mergers/ amalgamations are not given due importance or adequately explored as was in the case of Vennet(1996) and Mehta and Kakani (2006). Some of the studies highlight the problems as in the case of Vijh (1994) and Anand and Singh (2008), which stated that the shareholders of Bidders Banks suffered as a result of mergers but appropriate measures to make the merger profitable were not dealt within the study. While some studies mention the theoretical implications of mergers and amalgamations and they do not look into practical application of it as is seem in the case of Bhaskar, et al., (2009), Natarajan and Kalaichelvan(2011) and Goyal and Joshi (2011). Therefore, the major limitation seems that in most of the studied, post merger analysis, i.e. analyzing how the merged or resultant banks perform financially after the merger is not done which is extremely important from the point of view of the viability and success of the merger and amalgamations.

Some studies cannot be generalized as the sample size is very small as in S, Devarajappa (2012) while some works suffer from statistical limitations as in Venkariya (2012)

The researcher has made an effort to address these research gaps and has made an attempt to make complete and comprehensive study on merger or amalgamations. The research related to banks mergers is different. It is compiled, analyzed and reviewed in order to develop an understanding about the topic and also understand the work that
has been carried out in this area. It has been found that Mergers / Amalgamations are of late becoming a potent tool in the hands of Indian government. It is found that though lot of studies have been done on this topic the merger mania in the last few years is creating waves all over the world and the thesis has been so designed so as to evaluate the latest Merger and Amalgamations involving Indian banking sector which is the back bone of Indian economy.

Research studies these days are gaining an unprecedented focus and attention. A researchable area in any academic discipline is an area that has an ample scope to be explored. The scope in itself poses some potential problems that need to be answered. The present study is an empirical work based on secondary source of information. The study not only fulfills the requirement of the academic degree but also it is part of my social commitment to bring out the facts and realities of Mergers and Amalgamations and its impact on the Indian banking sector since economic liberalization. The study will not only to its readers but shall help the future researcher as their guide. The study further makes an attempt to point out and suggest that mergers and amalgamations will play a very crucial role for becoming the Indian banks of global standard.

In the contemporary world, Mergers have become popular due to globalization, liberalization, technological developments & intensely competitive business environment. The world economy is facing serious difficulties in terms of failure of major banks and financial institutions, future growth prospects became very uncertain exposing major economies to deep recession. In spite of this, in the midst of all the darkness and disorder of the world economy, India’s banking sector has been amongst the few to maintain resilience. But in India there is a need of growing balance sheet, faster credit expansion, increasing profitability and productivity similar to banks in developed countries. This study emphasizes the Mergers and Amalgamations as the key enabler for rapid growth of the Indian banking Industry. The study of strategic Merger and amalgamations in India since economic liberalization in the Indian banking sector would cover a span of nearly two decades i.e., from 1991 to 2013. This span of period would be more than sufficient to find out the trends in the financial performance of banks vis-a-vis merger and acquisitions particularly in the Indian banking sector. Keeping this in mind the present study is mainly focused on the financial performance of both Banks before and after the Mergers and Amalgamations
on the basis of trends and reports and also studies the synergies and value that are created as a result of merger. A separate study is dedicated to study the impact of merger on the shareholder’s wealth of Target and Bidder Banks. The study also investigates the idea for restructuring the banks through Merger and Amalgamations for better performance and maintaining international standard. Besides this backdrop, Indian banking sector has been selected as the theme of the research study on Mergers in the Indian context. For this several measures are employed for appraising the financial and operating performance of the banks before and after the merger.

The main **objectives of the study** are as given below:

1. To study the major Mergers / Amalgamations deals that have been taken place globally and in India.
2. To study the Mergers / Amalgamations in Indian Banking sector since economic liberalization and its financial performance in the last few years.
3. To examine the pre and post merger Profitability, Solvency, Operational efficiency and Asset utilizations capacity of banks to know whether the Mergers and Amalgamations led to the profitable situations for the merging and the merged Banks.
4. To identify the value change through merger by comparing the Enterprise value of Banks before and after the merger.
5. To examine the Business Performance of Banks before and after from Merger and Amalgamations.
6. To find out the impact of Mergers and Amalgamations announcement on the shareholder’s wealth of Bank.
7. To suggest measure for rapid and planned growth of Indian Banking sector on international basis by using merger as an effective tool.

To achieve the aforesaid objectives, **six hypotheses** have been developed to fulfill the ultimate results of the study. Six hypotheses have been further bifurcated into **fifteen sub hypotheses** to cover up the various dimensions of mergers and amalgamations.

[1] Testing the significant difference between Pre and Post merger Profitability of Banks.

H₀ (Null Hypothesis) = There is no significant difference between Pre and Post merger Profitability of Banks.
\( H_\alpha \) (Alternative Hypothesis) = There is a significant difference between Pre and Post merger Profitability of Banks.

**Sub Hypotheses:**

1. Testing the significant difference between the Pre and Post Merger Net Profit Margin (NPM) of Merged Banks.

\( H_0 \) (Null Hypothesis) = There is no significant difference between the Pre and Post Merger Net Profit Margin (NPM) of Merged Banks.

\( H_\alpha \) (Alternative Hypothesis) = There is significant difference between the Pre and Post Merger Net Profit Margin (NPM) of Merged Banks.

2. Testing the significance difference between Pre and Post merger Earning Per Share (EPS) of merged Banks.

\( H_0 \) (Null Hypothesis) = There is no significance difference between Pre and Post merger Earning Per Share (EPS) of Merged Banks.

\( H_\alpha \) (Alternative Hypothesis) = There is significance difference between Pre and Post merger Earning Per Share (EPS) of Merged Banks.

3. Testing the significance difference between the Pre and Post Merger Price to Earnings (P/E) ratio of Merged Banks.

\( H_0 \) (Null Hypothesis) = There is no significant difference between the Pre and Post Merger Price to Earnings (P/E) ratio of Merged Banks.

\( H_\alpha \) (Alternative Hypothesis) = There is significant difference between the Pre and Post Merger Price to Earnings (P/E) ratio of Merged Banks.

4. Testing the significance difference between the Pre and Post Merger Enterprise value to Profit before Depreciation Interest Taxes and Amortization (EV/PBDITA) ratio of Merged Banks.

\( H_0 \) (Null Hypothesis) = There is no significant difference between the Pre and Post Merger Enterprise value to Profit before Depreciation Interest Taxes and Amortization (EV/PBDITA) ratio of Merged Banks.

\( H_\alpha \) (Alternative Hypothesis) = There is significant difference between the Pre and Post Merger Enterprise value to Profit before Depreciation Interest Taxes and Amortization (EV/PBDITA) ratio of Merged Banks.

H₀ (Null Hypothesis) = There is no significant difference between Pre and Post merger Operational efficiency and Asset utilization capacity of Banks.

Hₐ (Alternative Hypothesis) = There is a significant difference between Pre and Post merger Operational efficiency and Asset utilization capacity of Banks.

Sub Hypotheses:

1. Testing the significance difference between the Pre and Post Merger Total Asset Turnover Ratio (TATR) of Merged Banks.

H₀ (Null Hypothesis) = There is no significant difference between the Pre and Post Merger Total Asset Turnover Ratio (TATR) of Merged Banks.

Hₐ (Alternative Hypothesis) = There is significant difference between the Pre and Post Merger Total Asset Turnover Ratio (TATR) of Merged Banks.

2. Testing the significance difference between the Pre and Post Merger Return on Assets (ROA) of Merged Banks.

H₀ (Null Hypothesis) = There is no significant difference between the Pre and Post Merger Return on Assets (ROA) of Merged Banks.

Hₐ (Alternative Hypothesis) = There is significant difference between the Pre and Post Merger Return on Assets (ROA) of Merged Banks.


H₀ (Null Hypothesis) = There is no significant difference between Pre and Post merger Solvency of Banks.

Hₐ (Alternative Hypothesis) = There is a significant difference between Pre and Post merger Solvency of Banks.

Sub Hypotheses:

1. Testing the significance difference between the Pre and Post Merger Interest Coverage Ratio (ICR) of Merged Banks.
H₀ (Null Hypothesis) = There is no significant difference between the Pre and Post Merger Interest Coverage Ratio (ICR) of Merged Banks.

Hₐ (Alternative Hypothesis) = There is significant difference between the Pre and Post Merger Interest Coverage Ratio (ICR) of Merged Banks.


H₀ (Null Hypothesis) = There is no significant difference between Pre and Post merger Enterprise Value of Banks.

Hₐ (Alternative Hypothesis) = There is a significant difference between Pre and Post merger Enterprise Value of Banks.


H₀ (Null Hypothesis) = There is no significant difference between Pre and Post merger Business performance of Banks.

Hₐ (Alternative Hypothesis) = There is a significant difference between Pre and Post merger Business performance of Banks.

Sub Hypotheses:

1. Testing the significance difference between Pre and Post merger Total Income (TI) of Merged Banks.

H₀ (Null Hypothesis) = There is no significance difference between Pre and Post merger Total Income (TI) of Merged Banks.

Hₐ (Alternative Hypothesis) = There is significance difference between Pre and Post merger Total Income (TI) of Merged Banks.

2. Testing the significance difference between Pre and Post merger Total Expense (TE) of Merged Banks.

H₀ (Null Hypothesis) = There is no significance difference between Pre and Post merger Total Expense (TE) of Merged Banks.

Hₐ (Alternative Hypothesis) = There is significance difference between Pre and Post merger Total Expense (TE) of Merged Banks.
3. Testing the significance difference between Pre and Post merger Market Capitalization (MCap) of Merged Banks.

\( H_0 \) (Null Hypothesis) = There is no significance difference between Pre and Post merger Market Capitalization (MCap) of Merged Banks.

\( H_a \) (Alternative Hypothesis) = There is significance difference between Pre and Post merger Market Capitalization (MCap) of Merged Banks.

4. Testing the significance difference between Pre and Post merger Interest Expense (I E) of Merged Banks.

\( H_0 \) (Null Hypothesis) = There is no significance difference between Pre and Post merger Interest Expense (I E) of Merged Banks.

\( H_a \) (Alternative Hypothesis) = There is significance difference between Pre and Post merger Interest Expense (I E) of Merged Banks.

5. Testing the significance difference between Pre and Post merger Net Sales (N S) of Merged Banks.

\( H_0 \) (Null Hypothesis) = There is no significance difference between Pre and Post merger Net Sales (NS) of Merged Banks.

\( H_a \) (Alternative Hypothesis) = There is significance difference between Pre and Post merger Net Sales (NS) of Merged Banks.

6. Testing the significance difference between Pre and Post merger Net Profit (N P) of Merged Banks.

\( H_0 \) (Null Hypothesis) = There is no significance difference between Pre and Post merger Net Profit (NP) of Merged Banks.

\( H_a \) (Alternative Hypothesis) = There is significance difference between Pre and Post merger Net Profit (NP) of Merged Banks.

7. Testing the significance difference between the Pre and Post merger Total Liabilities (TL) of Merged Banks.

\( H_0 \) (Null Hypothesis) = There is no significance difference between Pre and Post merger Total Liabilities (TL) of Merged Banks.
Hₐ (Alternative Hypothesis) = There is significance difference between Pre and Post merger Total Liabilities (TL) of Merged Banks.

[6] Testing the significant impact on the shareholders wealth of banks with the announcement of mergers and amalgamations.

H₀ (Null Hypothesis) = There is no significant impact on the shareholders wealth of banks with the announcement of mergers and amalgamations.

Hₐ (Alternative Hypothesis) = There is a significant impact on the shareholders wealth of banks with the announcement of mergers and amalgamations.

**Sub Hypotheses:**

1. Testing the significant impact on the shareholders wealth of Target banks with the announcement of mergers and amalgamations.

H₀ (Null Hypothesis) = There is no significant impact on the shareholder’s wealth of target banks with the announcement of merger.

Hₐ (Alternative Hypothesis) = There is significant impact on the shareholder’s wealth of target banks with the announcement of mergers and amalgamations.

1. Testing the significant impact on the shareholder’s wealth of Bidder banks with the announcement of mergers and amalgamations.

H₀ (Null Hypothesis) = There is no significant impact on the shareholder’s wealth of Bidder banks with the announcement of mergers and amalgamations.

Hₐ (Alternative Hypothesis) = There is significant impact on the shareholder’s wealth of Bidder Banks with the announcement of mergers and amalgamations.

This research is designed to examine the financial performance of Indian Banks that expand through Mergers and Amalgamations and to carry out the quantitative, statistical analyses with a view to understand the financial performance in the long run, post merger. An attempt is made by the Researcher to study the financial profile of Target and Bidder Banks both before and after the merger and to apply various financial and statistical tools to evaluate the impact of merger on the financial and operating performance of Banks. It also examines the impact of merger on the shareholder’s wealth of Target and Bidder banks. The Researcher collected the financial data of target and bidder Banks before and after the merger. The data are
organized in the form of comparative statements and ratio analysis. For the years prior to the merger, the aggregate financial ratios of both target & bidder Banks are considered and for the post merger, the aggregate financial ratios of bidder Banks alone were used. The relevant statistical tools are used to test the effects of the merger on the financial and operating performance of the Banks. The year of merger are considered in the post merger period for the estimation.

Researcher has examined five Merger and Amalgamations which had happened in the Indian Banking sector. There are 24 cases of mergers/amalgamations in Indian banking sector since economic liberalization, out of them 5 cases have been selected randomly by the researcher for the study. These mergers happened for the expansion, diversification, survival of sick banks, competition with International market and overall growth. For the purpose of analyzing the profitability of the Target and Bidder Banks and to find the impact of Merger and Amalgamations on shareholder’s wealth various accounting and financial measures are undertaken. Financial ratios have been calculated to ascertain the profitability, operating efficiency and asset utilization capacity, solvency, enterprise value, business performance and market capitalization of the merged Bank in the financial years comprising the time frame of the present study.

Six main hypotheses split into fifteen sub hypotheses are formulated to find out the impact of Mergers and Amalgamations on the profitability, operating efficiency and Asset utilization capacity, solvency, enterprise value, business performance and to analyze the impact on shareholder’s wealth. The profitability parameters are Net Profit Margin (NPM), Earning per Share (EPS), Price to Earnings Ratio (P/E) and Enterprise Value to Profit before Depreciation, Interest, Taxes and Amortizations (EV/PBDITA). The operating efficiency and Asset utilization capacity parameters are Total Asset Turnover Ratio (TATR) and Return on Assets (ROA), the solvency parameters is Interest Coverage Ratio (ICR). The Enterprise value (EV) and the Business performance parameters are Market Capitalization (MC), Total Income (TI), Total Expense (TE), Interest Expense (IE), Net Sales (NS) Net Profit (NP) and total Liabilities (TL). The financial ratios of the banks to be analyzed both before and after the merger period shows how ratios of banks are changed at the end of financial year. The study has adopted the methodology of comparing pre and post merger aggregate financial performance of Target and Bidder banks both before and after the merger.
The year of merger has been included in the post merger period for analyzing the financial performance of banks. For the purpose of analysis ratios analyses and Independent sample t-test are used. In order to analyze the impact on shareholder’s wealth Standard risk adjusted event study (simple linear regression and paired sample t-test) analysis has been done for each banks involved in the following five merger announcements in the Indian Banking sector: Nedungadi Bank with Punjab National Bank (2002), Global Trust Bank with Oriental Bank of Commerce (2004), Bank of Punjab with Centurion Bank (2005), Centurion Bank of Punjab with HDFC Bank (2008) and Bank of Rajasthan with ICICI Bank (2010). The share price data and market index data, namely, BSE500 are taken from the official website of Bombay Stock Exchange of India, however the first date of media announcement of the merger has been taken as the event date (day zero).

The analysis presented in the fourth chapter sheds light on the financial viability of major Amalgamations deals that have taken place in the Indian Banking sector. Amalgamations are mainly undertaken for restructuring of State owned weak Bank through forced merger and voluntary merger by private group Banks. In this study, the detailed financial analysis of five mergers and Amalgamations that have taken place in the Indian Banking sector: Nedungadi Bank with Punjab National Bank (2002), Global Trust Bank with Oriental Bank of Commerce (2004), Bank of Punjab with Centurion Bank (2005), Centurion Bank of Punjab with HDFC Bank (2008) and Bank of Rajasthan with ICICI Bank (2010) were analyzed. The impact of mergers and amalgamations on the performance of the banks both before and after the amalgamations are taken into account for the same. It is seems in the case of PNB and Nedungadi Bank that the asset utilizations and operating efficiency improved after the amalgamation. The Solvency and enterprise value of Bank also improved after the amalgamation. The Profitability of PNB increased in terms of NPM and EPS but the P/E and EV/PBDITA did not significantly affect the business performance of Bank in term of parameter like Total Income, Total Expense, Market Capitalization, Interest expense, Net Sales, Net profit and Total Liabilities were significantly improved. The amalgamation of Oriental Bank of Commerce and Global Trust Bank also a forced merger, it is found that after the amalgamation, the efficiency of bank in term of asset utilization and operating efficiency, Solvency, Profitability and Enterprise value of bank did not changed significantly. However, the ratio like TATR and EPS differed
significantly after the amalgamation. The business parameters of Bank were significantly improved after the amalgamation.

The analysis presented in the chapter also examines the pre and post merger financials of the banks involved in the mergers and amalgamations deals and analyses whether the merger had a positive, negative or limited effect on the performance. In the case of Bank of Punjab with Centurion Bank, it is found that the asset utilizations and operational efficiency, Profitability, and solvency did not significantly differ after the amalgamations. However the Enterprise value was affected positively but not significantly. The market capitalization is also insignificant. The business performance was not so well after the merger. The Interest Expense and Net Sales did not change and bank were running into losses and therefore after the period of two years Centurion Bank of Punjab merged with HDFC Bank in the year 2008. The Voluntary amalgamation of Centurion Bank and Bank of Punjab was not effectively utilized by the Centurion bank. The financial performance of HDFC Bank after the amalgamation, the performances in terms of solvency, Asset utilizations and operational efficiency and Profitability did not significantly differ except EPS. However, the business parameters were significantly improved after the amalgamation except only net profit. The Enterprise value of bank after the merger was significantly improved. The Voluntary merger of Bank of Rajasthan with ICICI Bank was done in order to develop big private bank in India. Nonetheless the performance of ICICI Bank did not change after the amalgamation in terms of Asset utilization and operational efficiency, Solvency and Profitability. The Business performance of ICICI Bank showed no significant improvement. However the Enterprise value of bank enhanced significantly.

The comparative study of Public and Private Banks on the financial performance after the Amalgamation has been discussed. Having discussed five significant Mergers and Amalgamations in the Indian Banking Sector both in the public and private sector banks, the researcher examined the impact on the shareholders wealth that have taken place in the private group banks in the Indian Banking Sector and also examined the announcement effect of merger on shareholders’ wealth.

Generally investors view the announcement as something positive. This study has empirically examined the informational efficiency of the Indian Stock Market with regards to the announcement of Merger and Acquisitions in the Indian Banking
After testing, the study showed that the expectations of shareholders of Target and Bidder banks to avail the excess return could not be realized with public information and they were unable to earn abnormal return neither before nor after the announcement of M&A’s. The study proved that the announcement of merger and amalgamations in the Indian capital market does not create wealth for the Target as well as Bidder Bank shareholders. The publicly available information is disseminated in the stock prices and no investor is able to earn abnormal/excess return.

This study had empirically analyzed the impact on shareholders’ wealth with respect to merger and acquisitions announcement after the release of the information in the market and examined the effects of mergers announcement on stock price of banks. Five Banks mergers were used as the sample for the study with stock price obtained from BSE India for the whole study. They were traded on BSE-500; the standard adjusted event study methodology was used to analyze the impact of merger on shareholders’ wealth. The findings show that there is no creation of abnormal return in the stock price. Moreover, the analysis displays that the announcement of merger does not have any significant impact on the stock price of banks and does not create wealth for the shareholders of both target as well as bidders banks. The results supported the two null hypotheses.

The findings of the study was undertaken to test whether the Mergers/Amalgamations led to the profitable situation or not for the Indian banking sector. Merger as mean of improvement in performance of banks in India. Five cases of banks mergers were examined and compared pre and post mergers financial performance in terms of profitability, asset utilization and operational efficiency, solvency, enterprise value and business parameters.

**Case 1: Nedungadi Bank (NB) merged with Punjab National Bank (PNB)**

**Profitability:** The result shown by independent sample t-test reveals that after the merger, the profitability of PNB has increased in terms of Net Profit Margin (NPM) and Earning Per Share (EPS). The p-values were 0.000 and 0.011 which are less than 0.05 at 5% level of significance and leads to statistically significant position. But the Price to earnings (P/E) and Enterprise Value to Profit before Interest, Depreciation, Tax and Amortizations (EV/PBIDTA) has not significantly differed with the p-values 0.399 and 0.584 which are more than 0.05 at 5% level of significance and it is
statistically insignificant. Hence, Null hypothesis is accepted and Alternative hypothesis is rejected. Therefore the profitability of PNB has not significantly differed after the merger.

**Assets utilization and Operational efficiency:** After using independent sample t-test, it has been found that the post merger performance of PNB has increased after the merger in terms of assets utilization and operational efficiency. The total asset turnover ratio (TATR) and return on asset (ROA) have increased and shown the t-values as 7.98 and -3.383 with the p-values 0.000 and 0.000 which are statistically significant and lead to the conclusion that the after the merger the bank assets utilization and operational efficiency have significantly changed. Hence the null hypothesis is rejected and alternative hypothesis is accepted.

**Solvency:** The result shown by independent sample t-test reveals that the solvency position of PNB has also improved after the Amalgamations / Merger, the Interest Coverage ratio (ICR) has significantly improved in the post merger with the t-value -6.478 and p-value 0.000, which is less than 0.05 at 5% level of significance, therefore its leads to the conclusion that solvency position of PNB has improved after the merger. Hence the null hypothesis is rejected and alternative hypothesis is accepted.

**Enterprise Value (EV):** After using independent sample t-test, it has been found that the EV of PNB has significantly improved after the merger. The result reveals that the EV of PNB shows the t-value -3.684 and the p-value 0.005 which is less than 0.05 at 5% level of significance and makes it statistically significant. Hence the null hypothesis is rejected and alternative hypothesis is accepted.

**Business Parameters (BP):** The result shown by independent sample t-test reveals that the performance of PNB in terms of business parameter like TI, TE, MCap, IE, NS, NP and TL significantly increased. After applying independent sample t-test, it has been found that the p-values were 0.04, 0.004, 0.000, 0.011, 0.005, 0.002 and 0.002 which are less than 0.05 at 5% level of significance finds it to be statistically significant. Hence the null hypothesis is rejected and alternative is accepted. Therefore it is concluded that after the merger with the Nedungadi Bank the business performance of PNB has significantly improved.
In all the above results, it has been found that PNB has significantly improved difference after the merger in terms of asset utilization and operational efficiency, solvency, EV and increase business parameters, but the profitability does not significantly differ, therefore it leads to the conclusion that after 10 years PNB started getting benefit from the merger. It is concluded that restructuring of weak bank (Nedungadi Bank) for the survival through Merger/Amalgamation with PNB has gained long term strategic benefits.

Case 2: Global Trust Bank (GTB) merged with Oriental Bank of Commerce (OBC)

This merger gives an insight into the impact of merger/amalgamation in public sector bank.

Profitability: After applying independent sample t-test it has been found that the profitability of OBC did not significantly increase after the merger in terms of NPM, P/E, and EV/PBDITA. The t-values are -0.237, 0.054 and 0.273 with the p-values 0.816, 0.957 and 0.788 which are more than 0.05 at 5% level of significance and find it to be statistically insignificant. But only EPS had significantly improved after the merger with the p-value 0.002 which is less than 0.05 at 5% level of significance. Hence the null hypothesis is accepted and alternative hypothesis is rejected. Therefore the merger of GTB with OBC has not made significant differences in profitability of OBC.

Assets utilization and Operational efficiency: After applying the independent sample t-test, it has been found that the p-value of TATR is 0.000 which is less than 0.05 at 5% level of significance and the p-value of ROA was 0.255 which is more than 0.05 at 5% level of significance, hence the null hypothesis is accepted and alternative hypothesis is rejected. This implies that the asset utilization and operational efficiency of OBC did not significantly differ after the merger.

Solvency: After using the independent sample t-test, it has been found that ICR of OBC does not have significant difference after the merger. The p-value of ICR is 0.883 which is more than 0.05 at 5% level of significance, hence the null hypothesis is accepted and alternative hypothesis is rejected, which leads to the conclusion that after the merger there is no significant difference in the solvency position of OBC.
Enterprise Value (EV): The EV of OBC has not significantly increased after the merger. After applying the t-test it has been found that the EV of OBC has not significantly increased after the merger. The p-value is 0.88 which is more than 0.05 at 5% level of significance, therefore null hypothesis is accepted and alternative hypothesis is rejected. This shows that after the merger OBC has not significantly improved in terms of EV.

Business Parameters (BP): After the merger of GTB merged with OBC, the performance of OBC has significantly improved. After applying independent sample t-test it has been found that the p-values TI, TE, MCap, IE, NS, NP and TL are 0.005, 0.006, 0.000, 0.009, 0.006, 0.002, and 0.002 which are less than 0.05 at 5% level of significance and leads to statistically significant. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It implies that after the merger the business performance of bank has positively differed.

After the merger/amalgamations, it has been found that the EV of OBC did not increase significantly; the business performance of OBC in terms of net profit, total income, total expense, mcap, net sales, total liabilities and interest expense has increased significantly. But solvency, profitability and asset utilizations and operational efficiency did not change. The basic intent of the merger/amalgamation of GTB and OBC for restructuring of weak bank for survival through Amalgamation seems successful, but the long term financial gains has yet to be exploited for smooth financial position. The main intent of merger of OBC was an apparent synergy of post merger, as the weakness of GTB was bad assets and the strength of OBC lies in recovery. In addition, GTB being a south India based bank would give OBC the much-needed edge in the region apart from tax relief because of the merger. GTB had no choice as the merger was forced on it, by an RBI ruling, following its bankruptcy. OBC has gained from the 104 branches and 276 ATMs of GTB, a workforce of 1400 employees and one million customers. Both banks had a common IT platform. The merger also filled up OBC’s gap in computerization and high-end technology. The presence of OBC has increased by using the modern infrastructure of GTB in southern states of India.
Case 3: Bank of Punjab (BOP) merged with Centurion Bank (CB)

**Profitability:** After using independent sample t-test it has been found the p-values of Net profit Margin (NPM), Earning per share (EPS) and Enterprise value to profit before interest, depreciation, taxes and amortizations (EV/PBIDTA) were 0.623, 0.95 and 0.636 which are more than 0.05 at 5% level of significance and are statistically insignificant, except the Price to Earnings ratio (P/E) has the p-value 0.003 which is less than 0.05 at 5% level of significance and is thus statistically significant. Therefore, the result reveals that the profitability of CB did not significantly differ after the merger with the BOP. Hence the null hypothesis is accepted and alternative hypothesis is rejected.

**Assets utilization and operational efficiency:** After applying independent sample t-test, the p-value of TATR and ROA were 0.534 and 0.851 which are greater than 0.05 at 5% level of significance, which lead to the conclusion that the difference is statistically insignificant. The null hypothesis is accepted and alternative hypothesis is rejected. This implies that the assets utilization and operational efficiency of CB does not significantly differ after the merger.

**Solvency:** The solvency position of CB has not significantly changed after the merger with BOP. After applying independent sample t-test, it has been found that the p-value is 0.759 is greater than 0.05 at 5% level of significance. Therefore it leads to the conclusion that the difference is statistically insignificant. Hence the null hypothesis is accepted and alternative hypothesis is rejected. This implies that after the amalgamation with BOP, the CB does not have any significant difference in solvency.

**Enterprise Value (EV):** By applying independent sample t-test, it has been found that the EV of CB has significantly and positively increased after the merger. The p-value was 0.298 which is more than 0.05 at 5% level of significance, therefore it indicates that the difference is statistically insignificant. Hence the null hypothesis is accepted and alternative hypothesis is rejected, which leads to the conclusion that after the merger with BOP the value of enterprise of CB has not increased significantly.

**Business Parameters (BP):** By comparing the business parameter in the pre and post merger periods with the help of independent sample t-test, it has been found that the p-value of parameter likes Total Income (TI), Total Expense (TE), Net Profit (NP) and Total Liabilities (TL) were 0.022, 0.049, 0.048 and 0.007 which are less than 0.05
at 5% level of significance and are statistically significant, except the parameters like Market Capitalization (MCap), Interest Expense (IE) and Net Sales (NS) which have not significantly differ. The p-values are 0.271, 0.323 and 0.055 which are more than 0.05 at 5% level of significance and regarded it to be statistically insignificant. Hence the null hypothesis is rejected and alternative hypothesis is accepted. Therefore after the merger the business performance of CB has significantly increased.

After the voluntary merger of BOP with CB, it has been found that the business performance of CB has improved, but the other financial aspects like solvency, asset utilization and operational efficiency and profitability did not change. The EV of CB has also not significantly increased after the merger, therefore it seems that CB did not manage merger properly and had weak position, for that reason after two year from the merger the bank went for another merger with HDFC Bank in 2008.

Case 4: Centurion Bank of Punjab (CBOP) merged with HDFC Bank

**Profitability:** The profitability of HDFC Bank is not significantly different but in the post merger period, the performance HDFC Bank improved. After using t-test it has been found that the p-values of NPM, EPS, P/E and EV/EBITDA are 0.392, 0.129, 0.545 and 0.611 which are more than 0.05 at 5% level of significance, therefore it is statistically insignificant. Hence null hypothesis is accepted and alternative hypothesis is rejected. This means that after the merger with CBOP, the HDFC Bank profitability did not change significantly.

**Assets utilization and operational efficiency:** After using independent sample t-test, the bank asset utilization and operational efficiency are significantly different; the p-values of Total Asset Turnover Ratio (TATR) and Return on Asset (ROA) were 0.687 and 0.564 which are more than 0.05 at 5% level of significance and lead to conclusion that the difference is statistically insignificant. Therefore the null Hypothesis is accepted and alternative hypothesis is rejected. The result reveals that after the merger the asset utilization and operational efficiency of HDFC Bank did not change.

**Solvency:** After using independent sample t-test, it is found that the difference between the pre and post merger solvency of HDFC Bank has not changed. The p-value of Interest coverage Ratio (ICR) is 0.359 which is more than 0.05 at 5% level of significance; therefore it is statistically insignificant and leads to conclusion that the
solvency position of HDFC Bank after the merger remains unchanged. Hence the null Hypothesis is accepted and alternative hypothesis is rejected.

**Enterprise Value (EV):** The EV of HDFC Bank has significantly improved after the merger. After using the independent sample t-test, the p-value of EV is 0.00 which is less than 0.05 at 5% level of significance; therefore it is statistically significant. Therefore null hypothesis is rejected and alternative hypothesis is accepted. This means that the EV of HDFC bank has significantly increased after the merger with CBOP.

**Business Parameters (BP):** The performance of HDFC Bank has significantly improved after the merger with CBOP. The parameters like TI, TE, MCap, IE, NS and TL were positively increased. After applying Independent sample t-test, it has been found that the p-values of all business parameter (TI, TE, MCap, IE, NS NP and TL) are same 0.000 which are less than 0.05 at 5% level of significance, and are statistically significant, except NP. It is 0.014 and is also less than 0.05 at 5% level of significance. Therefore it is statistically significant. Hence, the null Hypothesis is rejected and alternative hypothesis is accepted which leads to conclusion that after the merger the HDFC Bank gained efficiency in increasing the business in the country.

After the voluntary Merger/Amalgamation with CBOP, the asset utilization and operational efficiency, solvency, profitability of HDFC Bank have improved but are not statistically significant, the EV and Business Parameter have significantly increased after the merger. The main intent was to provide an opportunity to add scale, geography (northern and southern states) and management bandwidth. In addition, there was a potential of business synergy and cultural fit between the two organizations. For CBOP, HDFC bank would exploit its underutilized branch network that had the requisite expertise in retail liabilities, transaction banking and third party distribution. The combined entity would improve productivity levels of CBOP branches by leveraging HDFC bank's brand name.

**Case 5: Bank of Rajasthan (BOR) merged with ICICI Bank**

**Profitability:** After applying independent sample t-test, the results reveal that the NPM, P/E and EV/PBIDTA shows the p-values 0.127, 0.925 and 0.712 which exceed 0.05 at 5% level of significance, which is statistically significant but only EPS has significant difference after the merger. Hence the null hypothesis is accepted and
alternative hypothesis is rejected; therefore this implies that the profitability of the ICICI Bank did not change after the merger.

**Assets utilization and operational efficiency:** After applying the independent sample t-test, it has been found that the p-values of TATR & ROA are 0.725 and 0.125 which are more than 0.05 at 5% level of significance, which are statistically insignificant. Hence the null hypothesis is accepted and alternative hypothesis is rejected. This implies that the asset utilization and operational efficiency of ICICI bank did not change after the merger with BOR.

**Solvency:** The performance of ICICI Bank in terms of solvency did not change after applying the t-test. It has been found that ICR of ICICI Bank did not have significant difference after the merger. The p-value of ICR is 0.074 which is more than 0.05 at 5% level of significance, which is statistically insignificant. Hence the null hypothesis is accepted and alternative hypothesis is rejected which leads to the conclusion that after the merger there is no significant difference in the solvency position of ICICI Bank.

**Enterprise Value (EV):** After applying the t-test it has been found that the EV of ICICI Bank has significantly improved after the merger. The p-value is 0.032 which is less than 0.05 at 5% level of significance, which is statistically significant therefore null hypothesis is rejected and alternative hypothesis is accepted. This shows that after the merger, ICICI bank has significantly improved in terms of EV and moving steps forward to become the largest private bank in India.

**Business Parameters (BP):** The performance of ICICI Bank has not significantly improved after the merger with BOR, the p-values TI, TE, MCap, IE and NS are 0.079, 0.109, 0.153, 0.104 and 0.061 which are more than 0.05 at 5% level of significance, which are statistically insignificant except NP and TL. Hence the null hypothesis is accepted and alternative hypothesis is rejected which implies that after the merger the business performance of ICICI bank did not change significantly after the merger.

After the voluntary merger/ amalgamation, the solvency and profitability of ICICI Bank has increased but not significantly. The EV and BP of bank increased significantly, whereas asset utilization and operational efficiency did not change after
the merger. This implies that after the merger / amalgamation ICICI Bank started gaining benefits from the merger.

The study has empirically analyzed the impact on shareholder wealth with respect to mergers announcements after releasing the information in the market and examined the effects of mergers announcements on stock price of banks. Five Banks mergers were used as the sample for the study with stock price obtained from BSE India for the whole study. They were traded on BSE-500; the standard adjusted event study methodology was applied to analyze the impact of merger on shareholder wealth. It has been found that there is no creation of abnormal return in the stock price, but the analysis displays that the announcement of merger did not have any significant impact on the stock price of banks and did not create wealth for shareholders; therefore shareholders of target as well as bidders banks got no abnormal return. The result supported the two null hypotheses.

**Target Banks**

After using, **Standard Risk Adjusted Event Methodology** it has been found that all the target bank’s (Nedungadi Bank, Global Trust Bank, Bank Of Punjab, Centurion Bank of Punjab & Bank of Rajasthan) shareholders did not earn abnormal return except Bank of Rajasthan with the announcement of mergers in the Indian banking sector. A Simple linear regression and paired sample t-test is conducted and it has been found that the announcement of mergers of banks did not have any significant effect on the risk adjusted stock prices of banks. The p-value of all the banks is greater than 0.05 at 5% level of significance except in the case of Bank of Rajasthan which had mean difference of 0.02127 and shows cumulative abnormal return with t-value of 2.092 and p-value of 0.045 which are less than 0.05 at 5% level of significance. However it may not be the reason of merger announcement, it could be because of any other reason like the banks policies, government policies, RBI guidelines & Annual financial Report of banks in the same year etc. Hence, the null hypothesis is accepted. This implies that the announcement of mergers did not have any significant impact on the shareholders’ wealth of target banks (Nedungadi Bank, Global Trust Bank, Bank Of Punjab, Centurion Bank of Punjab & Bank of Rajasthan).
**Bidder Banks**

In respect of test of the impact on the shareholders’ wealth of bidder banks (Punjab National Bank, Oriental Bank of Commerce, Centurion Bank, HDFC Bank, & ICICI Bank) of the announcement of mergers and amalgamations, it has been found that all the bidder banks shareholders did not earn abnormal return with the announcement of merger by using Standard Risk Adjusted Event Methodology. A simple linear regression and paired sample t-test is conducted and it has been found that the announcement of mergers of banks did not have any significant effect on the risk adjusted stock prices of bidder banks. The p-value of all the banks is greater than 0.05 at 5% level of significance and is statistically insignificant. The null hypothesis is accepted. This implies that the announcement of mergers did not have any significant impact on the shareholders wealth of bidder banks (Punjab National Bank, Oriental Bank of Commerce, Centurion Bank, HDFC Bank, & ICICI Bank).

The most important aspect of mergers or amalgamations is facilitating smooth post merger integration. For this purpose various steps need to be accorded at the highest level of importance. It might be advisable to do so in phases in order to facilitate the complex process. Merger or amalgamation is potent and most useful tool to expand the global presence, with major Banks worldwide engaging in it fiercely, it might become a necessity rather than just an option for growth. It is necessary for big and small companies to recognize and accept this trend and adjust their business strategies accordingly. It is necessary to maintain balance in synergies and ensure that all aspects are given due importance and it does not lead to ignore one aspect for another. It might be advisable to study recent merger/amalgamation in the same or related industries to develop an understanding of the same. However it cannot be solely relied upon and requires a detailed case by case study. The management should be prepared to face new challenges and transform them into opportunities. A key aspect is innovation and creativity. The management should be prepared to accept changes and employ strategies keeping in mind the changing circumstances and ground realities rather than focus on just set conventions and rules. It might be advisable to develop core strategic teams which are professionally trained to facilitate a merger or amalgamation. It is imperative to maintain a policy of tolerance and cultural integration as it is necessary to sort out the human resource issue in the most amicable manner for post merger integration. The policy of employee’s retention is sensitive
aspect and care should be taken to maintain an environment where the focus is on efficiency and productivity and the workers are ably simulated and motivated to work in a new work environment after the merger. The management should also keep contingency measures and back up plans intact. In case the plans and strategies do not work out, risk management mechanism should be in place to address unforeseen circumstances. Following suggestions can be made on the basis of the findings of the study.

The profitability of PNB, OBC, CB, HDFC and ICICI Bank was moderately increased after the mergers/amalgamations but not increased significantly, so these banks require more concentration on cost reduction measures.

The EPS of CB decreased after the amalgamation, so the bank requires concentration on proper use of leverage. Presently CB is not working or exists. But after the merger, the bank again merged with HDFC Bank.

The P/E of HDFC Bank was decreased after the merger, so the bank requires concentration on policy more attractive so as to create interest among investors in the stock.

Bidder banks need to assess that if they are overpaying for their merger, this becomes one of the most important reasons for the failure of mergers/amalgamations and also in creating shareholders value.

Valuation for a target bank should be carefully done on the basis rational judgments and not just because the bidder bank can afford paying extra premium.

After the merger with BOR, the ICICI Bank has not increased business performance significantly, so the bank requires concentration on operational efficiency of bank.

In order to ensure a steady growth of financial performance after the merger, the bidder bank should also draw a plan for efficient utilization of banks’ increased capacity.

The EV of OBC and CB has not significantly increased; so each amalgamation should require strategic occasion in order to pool the resources of both sick and healthy bank, so that the benefits of the large scale of operation can be realized.

Financial Institutions should maintain a close watch over the performance of the merging banks during the post merger period. If the requirement increases, additional
funds may be provided, but when it starts making profit they should insist on long
term loans and reduction in working capital funds.

Merger must ensure better competition, reduced cost, larger market size through
globalization, benefits of economies of scale and also investment in technology.

Merger regulations should ensure a critical evaluation of the swap between reduction
in competition and potential gains in economic efficiencies.

In order to ensure a steady growth in capacity utilization, but results shows a
declining trend after second year of merger. The bidder bank should also draw a plan
for steady development.

The size of banks involved in a merger should be reasonable. For this the size of
merger should be large enough.

RBI should maintain a close watch over the performance of the merging banks during
post merger period. If desired performance is not achieved in a reasonable span of
time a prompt restructuring should be explored.

It is suggested that the government should install information system on banks
mergers/amalgamations, so that all those interested in such information can have an
easy access to the same.

The underlying strategy for mergers, as it is presently being thought to be, is, ‘larger
the bank, higher its competitiveness and better prospects of survival’. Due to smaller
size, Indian banks may find it very difficult to compete with international banks in
various facets of banking and financial services. So a thorough overhauling of such
biased policy is very much called for a better climate for mergers in Indian banking
sector.

Private Banks used mergers as a strategic tool for expanding their horizons. There is a
huge potential in rural markets of India, which is not yet explored by the major banks.
Therefore it should use mergers as their expansion strategy in rural market.
The researcher has attempted to make a **Contribution to the Existing Stock of Knowledge** regarding mergers/amalgamations. The study aims to explore the effects of the merger on primarily the post merger financial performance of the banks involved in the merger/amalgamation activity. For the purpose the financials of both the acquired/merged and the acquiring/merging bank have been taken into consideration. Though, mergers/amalgamation is a widely researched topic but the studies done on the post merger performance are limited. The Indian banking sector is taken up for the analysis which is experiencing vibrant activity in the past few years. Significant deals that have taken place in the Indian banking sectors are taken up for detailed analysis. The data is classified on the basis of the pre merger and post merger activity and internal and external factors affecting the performance are accounted for. The study aims to study the viability of the merger/amalgamation in the Indian banking sector on the basis of the post merger financial performance.

The researcher suggests the following core areas for the purpose of future research related to the topic of mergers/amalgamations are quite important. In the present era human resource is a crucial factor in determining the success or failure of the mergers/amalgamations and it is qualitative aspect which is very difficult to measure and quantify but has become extremely important in the present global economy where people and cultural cohesion is the key and especially in cross border deals. Also in the wake of recession question marks are being raised about the valuations of deal done under depressed conditions where the target company is valued at a much lower price than it’s worth. The post-merger financial performance of commercial banks can be examined by Data Envelopment Analysis (DEA) approach. Customers’ perceptions towards commercial banks in terms service quality after merger can be study. Future research may also examine the cross-industry, mergers in the financial services sector in India and abroad, as this is area which has not been investigated much. In future research should lay more emphasis on dynamic analysis methods rather than static ones, which do not use data on mergers directly but instead relate the potential consequences of consolidation, like the market power, service availability etc.